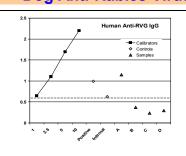




# Dog Anti-Rabies Virus Glycoprotein (RVG) IgG ELISA Kit Cat# 600-110-DRV



Anti-VRG IgG U/ml (Typical Curve)

## **ELISA Kit Features**

- Recombinant RVG coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs up to 6 months.
- Anti-RVG IgG Standards (0, 1, 2.5, 5, 10 U/ml) and positive controls.
- 100 ul samples (diluted 1:100 or more), 105 min, 3 incubation
- Contains all necessary reagents.

This kit is for detection of antibodies against Rabies virus 1-3 in Human serum. For in vitro research use only.

## Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

- Pipet 100 ul each of diluted standards samples (diluted 1:100 or more) and controls into wells. Mix gently and incubate at room Step 1. temperature for 60 min.
- Aspirate and wash the plate four times. Add 100ul of Antibody-HRP Conjugate to all wells, mix gently and incubate at room Step 2. temperature for 30 min.
- Step 3. Aspirate and wash the plate five times. Add 100 ul of TMB Substrate solution to all wells, mix gently, and incubate at room temperature for 15 min.
- Step 4. Pipet 100 ul of stop solution into each well and mix gently (blue color turns yellow). Measure OD at A450 nm.

#### **Performance Characteristics**

Purified recombinant (his tag; E.coli) RVG protein (protein accession #CAU03682.1, 501-aa) is used to coat the microwells; thus, no other antibody specificity is detectable in the assay. The Anti- IgG HRP conjugate reacts specifically with IgG class antibodies; IgA, IgM and IgE antibody would not be measured above background

The sensitivity of the assay to detect anti-RVG IgG, from either natural infection or vaccination, is controlled so that the 1 U/ml Calibrator represents a threshold OD for most true positives in serum diluted to 1:100 or greater. Visual inspection of the data in the above graph shows the following:

Calibrators - dilution curve of an anti-RVG antibody, derived from RVG vaccination, shows the OD range of the assay; high value indicates optimal sensitivity of the assay. 1 U/ml: a 'Cut-off' line has been drawn to indicate a threshold distinguishing between Positive/Negative. There is not a clear-cut threshold, rather a low OD area that could represent either low positives or high background negatives.

Positive Control – clearly positive (>0.5 net OD)

## **General Information**

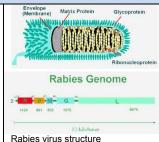
Rabies is a disease that causes acute encephalitis (inflammation of the brain) in warm-blooded animals. It is zoonotic (i.e., transmitted by animals), most commonly by a bite from an infected animal but occasionally by other forms of contact. Rabies is almost invariably fatal if post-exposure prophylaxis is not administered prior to the onset of severe symptoms. The primary cause of death is usually respiratory insufficiency. Worldwide, the vast majority of human rabies cases (approximately 97%) come from dog bites. Rapid and accurate laboratory diagnosis of rabies in humans and other animals are essential for timely administration of post exposure prophylaxis.



Human Rabies Vaccine



Recombinant Oral VRG Vaccine bait for animals (Coyote, racoon, etc)



The rabies virus is a member of the Lyssavirus genus, which have helical symmetry, so their infectious particles are approximately cylindrical in shape. They are characterized by an extremely broad host spectrum ranging from plants to insects and mammals; human-infecting viruses. The lipoprotein envelope carries knob-like spikes composed of Glycoprotein G. Spikes do not cover the planar end of the virion (virus particle). Beneath the envelope is the membrane or matrix (M) protein layer which may be invaginated at the planar end. The core of the virion consists of helically arranged ribonucleoprotein (RV-NP).

The nature of rabies disease dictates that laboratory tests be standardized, rapid, sensitive, specific, economical, and reliable. The standard test for rabies testing is dFA and RFFIT. However, these test labor intensive, take a long time, and also require handling of the live virus, and more expensive. They are also not suited for large sample testing or field trials. The new generation of ELISA overcomes all of these limitations including the use of safe recombinant proteins. ADI's Anti-Rabies ELISA kit is based on whole-inactivated virus or recombinant proteins are intended to use as a rapid screening test for the detection of rabies antibodies in serum samples of experimental animal (mouse, rabbit, goat, sheep etc). The antirabies virus Ig's ELISA kit can also be used to test the efficacy of standards vaccines in animals and humans. Rabies vaccines: Vaxirab, Verorab, Raboral (Merial). VRG vaccine is the recombinant vaccinia virus containing the rabies glycoprotein. It is used extensively to immunize wild animals (bats, coyote raccoons etc).

This ELISA kit is based on recombinant rabies virus glycoprotein (full length, ~58 kda, Strain CVS-11/RABV)). The whole rabies virus vaccines also induce antibodies to VRG. The ELISA kit is intended to test the efficacy of standards vaccines or test new formulations in animals and humans.

### Related items available from ADI

#600-010-DRV Dog Anti-Rabies Virus IgG ELISA Kit, 96 tests #600-020-HRV Human Anti-Rabies Virus IgG ELISA Kit, 96 tests, #600-030-MRG Mouse Anti-Rabies Virus IgG ELISA Kit, 96 tests #600-040-RRG Rabbit Anti-Rabies Virus IgG ELISA Kit, 96 tests #600-050-HRG Horse Anti-Rabies Virus IgG ELISA Kit, 96 tests 130729A

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